

REMARKS

Claims 1-32 are pending in the present application.

Claims 1-32 have been rejected.

No claims have been allowed.

Claims 1, 6, 11, 15 and 19 have been amended.

Reconsideration of Claims 1-32, as amended, is respectfully requested.

Amendments to the Specification

The Applicants have amended the specification to correct a typographical error in a reference numeral (reference numeral 585). The correct reference numeral 582 is shown in FIGURE 5D. Therefore, no new matter has been added by the amendment of the specification. The correction that was previously entered in the Amendment of November 15, 2004 did not insert the final “close parenthesis” after the corrected reference numeral 582. The present correction includes the missing “close parenthesis.”

The Applicants have also amended the specification to correct a typographical error in which the word “the” was misspelled as “te.”

Amendments to the Claims

The Applicants have amended Claims 1, 6, 11, 15 and 19 to claim (1) a security controller that operates repeatedly on a periodic basis to divide a database into portions and to store ones of the divided portions of the database into distributed memory units, and (2) an access controller that operates repeatedly to establish views of selectable records responsive to the periodic redistribution of database portions by the security controller.

Claim Rejections – 35 U.S.C. § 102(b) Anticipation

On Pages 6-7 of the April 21, 2005 Office Action, the Examiner rejected Claims 1-18 of the Application under 35 U.S.C. § 102 (b) as being anticipated by United States Patent No. 5,764,949 to Huang et al. (hereafter “*Huang*”). On Pages 6-7 of the April 21, 2005 Office Action, the Examiner rejected Claims 1, 6, 11 and 15 of the Application under 35 U.S.C. § 102 (b) as being anticipated by United States Patent No. 4,769,772 to *Dwyer*.

In response the Applicants have amended Claims 1, 6, 11, 15 and 19 as described above. The Applicants respectfully submit that the rejected Claims 1-18, as amended, are not anticipated by *Huang* and that the rejected Claims 1, 6, 11 and 15, as amended, are not anticipated by *Dwyer*. The Applicants respectfully request the Examiner to withdraw the rejection of Claims 1-18 and Claims 1, 6, 11 and 15 in view of the amendments to the claims and in view of Applicants’ remarks concerning the *Huang* reference and the *Dwyer* reference.

It is axiomatic that a prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131; *See, In re King*, 231 USPQ 136, 138 (Fed. Cir. 1986) (citing with approval, *Lindemann Maschinenfabrik v. American Hoist and Derrick*, 221 USPQ 481, 485 (Fed. Cir. 1984)); *In re Bond*, 910 F.2d 831, 832, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. MPEP § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 USPQ 619, 621 (Fed. Cir. 1985).

With respect to any of Claims 1-18, as amended, a determination of anticipation in accordance with Section 102 requires that each feature claimed therein be described in sufficient detail in the *Huang* reference to enable one of ordinary skill in the art to make and practice the claimed invention. Similarly, with respect to any of Claims 1, 6, 11 and 15, as amended, a determination of anticipation in accordance with Section 102 requires that each feature claimed therein be described in sufficient detail in the *Dwyer* reference to enable one of ordinary skill in the art to make and practice the claimed invention.

A. The *Huang* Reference

The Applicants respectfully submit that the *Huang* reference does not show each and every limitation of the Applicants' invention. The Applicants direct the Examiner's attention to amended Claim 1, which contains unique and novel limitations:

1. (Currently Amended) For use in managing a database of selectable records, a database administrator for association with a computer system having distributed memory units, said database administrator comprising:

a security controller that operates repeatedly on a periodic basis to (i) divide said database into portions and (ii) store ones of said portions to ones of said distributed memory units, said security controller thereby systematically periodically redistributing said database over said distributed memory units; and
an access controller that operates to repeatedly establish views of ones of said selectable records responsive to said security controller periodically redistributing said database over said distributed memory units. (Emphasis added).

The Applicants' invention as claimed in amended Claim 1 comprises a security controller 106 that periodically parses or disassembles a database into selectable records and stores the records in different memory units. (Specification, Page 22, Lines 13-16). The security controller 106 divides (e.g., decompiles, disassembles, parses, etc.) database 101 on any periodic basis. (Specification, Page 22, Line 19 to Page 23, Line 1). For example, the periodic basis may be: clock pulses, a threshold number of accesses to database 101 or some portion thereof for any given time period, the time of day, time since the last divide, or any other measurable event. The periodic basis may also be at random (Specification, Page 23, Lines 1-6). The *Huang* reference does not disclose (1) a security controller 106 that periodically parses or disassembles a database into selectable records and stores the records in different memory units, or (2) a security controller 106 that divides a database on a periodic basis.

Database 101 has a fluid state rather than a static state in that the records of data are repeatedly divided as portions of database 101 are stored to memory units 108-112. (Specification, Page 24, Lines 4-6). Because the security controller 106 periodically divides the database 101 and

relocates the individual data records (singularly or in groups), the security controller 106 is the only source for utilizing the key to the data link structure. If a data record or group is accessed by an unauthorized user, there is no link available for the unauthorized user to view the other linked records. (Specification, Page 27, Line 16 to Page 28, Line 10).

The *Huang* reference does not disclose, suggest or even hint at these features of the Applicants' invention. The *Huang* reference discloses a system and a method of pass through in a heterogeneous distributed database environment. The *Huang* reference discloses a hybrid pass through feature that is a combination of a pass through mode and a native mode. (*Huang*, Column 2, Lines 5-13). There is nothing in the *Huang* reference that anticipates the security controller 106 of the Applicants' invention. The Examiner asserted that the Interface Module 106 of *Huang* anticipates the security controller 106 of the Applicants' invention. ("where the security controller is the interface module") (April 21, 2005 Office Action, Page 8, Lines 1-9). The Applicants respectfully traverse this assertion of the Examiner for the following reasons.

Unlike the security controller 106 of the Applicants' invention, the Interface Module 106 of *Huang* does not periodically parse or disassemble a database into selectable records and store the records in different memory units. Unlike the security controller 106 of the Applicants' invention, the Interface Module 106 of *Huang* does not divide a database on a periodic basis.

The Examiner asserted that "interface modules and servers which perform [the periodic database division function] may also be reasonably called a 'security controller'," (April 21, 2005 Office Action, Page 3, Lines 8-9). While it may be possible to assign the label "security controller"

to the Interface Module 106 of *Huang* the fact remains that the *Huang* reference does not disclose an Interface Module 106 that performs the functions claimed in amended Claim 1.

That is, the Interface Module 106 of *Huang* does not “operate repeatedly on a periodic basis to (i) divide said into portions . . . thereby systematically periodically redistributing said database over said distributed memory units; ” (Emphasis added). In the *Huang* reference there is no disclosure of a systematic repetitive division and redistribution of a database for security purposes.

The Applicants’ invention also comprises an access controller 104 that operates to repeatedly establish views of ones of the selectable records responsive to the security controller 106 periodically redistributing the database 101 over the distributed memory units 108-112. Access controller 104 manages login and grants access to security controller 106. (Specification, Page 21, Lines 1-2). Login to access controller 104 may cause information to be retrieved from a profile table to create code for linking appropriate data records for the user to view or modify. The profile table is initially created by the authorized user and information in the table is used at every login to create a login table that allows security controller 106 to link the requested data records together to establish a view. (Specification, Page 25, Lines 2-8).

The *Huang* reference does not disclose, suggest or even hint at this feature of the Applicants’ invention. There is nothing in the *Huang* reference that anticipates the access controller 104 of the Applicants’ invention and its repeated operation to establish views of ones of the

selectable records responsive to security controller 106 periodically redistributing database 101 over the distributed memory units 108-112.

The Examiner asserted that the Interface Module 106 of *Huang* anticipates the access controller 104 of the Applicants' invention. ("where the access controller is the interface module") (April 21, 2005 Office Action, Page 8, Lines 1-14). The Applicants respectfully traverse this assertion of the Examiner for the following reasons.

Unlike the access controller 104 of the Applicants' invention, the Interface Module 106 of *Huang* does not operate to repeatedly establish views of selectable records responsive to a security controller periodically redistributing a database over distributed memory units. In the *Huang* reference there is no disclosure of a systematic repetitive division and redistribution of a database for security purposes. Consequently, the Interface Module 106 does not perform any function that is responsive to a security controller periodically redistributing a database over distributed memory units.

The Examiner asserted that "such a device [Interface Module 106] is considered to be an access controller because it allows access to the servers." (April 21, 2005 Office Action, Page 4, Lines 6-7). While it may be possible to assign the label "access controller" to the Interface Module 106 of *Huang* the fact remains that the *Huang* reference does not disclose an Interface Module 106 that performs the functions of access controller 104 as claimed in amended Claim 1.

For the reasons set forth above, Applicants respectfully submit that amended Claim 1 contains unique and novel limitations and that amended Claim 1 is not anticipated by the

Huang reference. Applicants also respectfully submit that Claim 6, Claim 11 and Claim 15, as amended, also contain unique and novel limitations and that Claim 6, Claim 11 and Claim 15, as amended, are not anticipated by the *Huang* reference. Claims 2 through 5 depend from and contain all the unique and novel limitations contained in amended Claim 1. Claims 7 through 10 depend from and contain all the unique and novel limitations contained in amended Claim 6. Claims 12 through 14 depend from and contain all the unique and novel limitations contained in amended Claim 11. Claims 16 through Claim 18 depend from and contain all the unique and novel limitations contained in amended Claim 15. Therefore, the Applicants respectfully submit that Claims 1-18, as amended, are not anticipated by the *Huang* reference. The Applicants respectfully request that the rejection of Claims 1-18 under 35 U.S.C. §102(b) as anticipated by the *Huang* reference should be withdrawn and that Claims 1-18, as amended, be passed to issue.

B. The *Dwyer* Reference

The Applicants respectfully submit that the *Dwyer* reference does not show each and every limitation of the Applicants' invention. The Applicants hereby incorporate by reference all of the comments made above concerning the Applicants' invention made with respect to the *Huang* reference.

The Applicants respectfully submit that the *Dwyer* reference does not disclose, suggest or even hint at the security controller 106 or the access controller 104 of the Applicants' invention. The *Dwyer* reference discloses a distributed database query optimization method that allows some query optimization to be done locally. (*Dwyer*, Column 2, Lines 50-54). The *Dwyer* method

determines an optimal execution strategy for a request that comprises query, update or transaction operations on a distributed database system. (*Dwyer*, Column 3, Lines 12-15).

There is nothing in the *Dwyer* reference that anticipates the operation of the security controller 106 of the Applicants' invention. There is nothing in the *Dwyer* reference that is analogous to the Applicants' security controller 106 that periodically divides database 101 and relocates the individual data records (singularly or in groups). There is nothing in the *Dwyer* reference that is analogous to a security controller 106 that is a sole source for utilizing a key to a data link structure. Further, there is nothing in the *Dwyer* reference that anticipates the operation of the access controller 104 of the Applicants' invention.

The Examiner asserted that the External Schema 4 and the Conceptual Schema 6 of *Dwyer* anticipate the security controller 106 of the Applicants' invention. ("where the security controller is the external scheme and conceptual schema") (April 21, 2005 Office Action, Page 7, Lines 3-13). The Applicants respectfully traverse this assertion of the Examiner for the following reasons.

Unlike the security controller 106 of the Applicants' invention, the External Schema 4 and the Conceptual Schema 6 of *Dwyer* do not periodically parse or disassemble a database into selectable records and store the records in different memory units. Unlike the security controller 106 of the Applicants' invention, the External Schema 4 and the Conceptual Schema 6 of *Dwyer* do not divide a database on a periodic basis.

The *Dwyer* reference states that "The external schemas 4a, 4b, and 4c are descriptions of the users 2a, 2b, 2c and 2d views, and serve as the user interface. The conceptual schema 6 is a

semantic description of the total distributed database.” (*Dwyer*, Column 5, Lines 44-47). Therefore, the external schema 4 of *Dwyer* are user interface “descriptions.” The conceptual schema 6 of *Dwyer* are “semantic descriptions” of a total distributed database. There is no disclosure of performing any of the claimed functions of the security controller 106 of the present invention.

While it may be possible to assign the label “security controller” to the External Schema 4 and the Conceptual Schema 6 of *Dwyer* the fact remains that the *Dwyer* reference does not disclose any structure that performs the functions claimed in Claim 1.

That is, the External Schema 4 and the Conceptual Schema 6 of *Dwyer* do not “operate repeatedly on a periodic basis to (i) divide said into portions thereby systematically periodically redistributing said database over said distributed memory units; ” (Emphasis added). In the *Dwyer* reference there is no disclosure of a systematic repetitive division and redistribution of a database for security purposes.

The Applicants’ invention also comprises an access controller 104 that operates to repeatedly establish views of ones of the selectable records responsive to the security controller 106 periodically redistributing the database 101 over the distributed memory units 108-112. Access controller 104 manages login and grants access to security controller 106. (Specification, Page 21, Lines 1-2). Login to access controller 104 may cause information to be retrieved from a profile table to create code for linking appropriate data records for the user to view or modify. The profile table is initially created by the authorized user and information in the table is used

at every login to create a login table that allows security controller 106 to link the requested data records together to establish a view. (Specification, Page 25, Lines 2-8).

The *Dwyer* reference does not disclose, suggest or even hint at this feature of the Applicants' invention. There is nothing in the *Dwyer* reference that anticipates the access controller 104 of the Applicants' invention and its repeated operation to establish views of ones of the selectable records responsive to security controller 106 periodically redistributing database 101 over the distributed memory units 108-112.

The Examiner asserted that the Internal Schema (8, 12, 14) of *Dwyer* anticipates the access controller 104 of the Applicants' invention. ("where the access controller is the internal schema") (April 21, 2005 Office Action, Page 7, Lines 3-18). The Applicants respectfully traverse this assertion of the Examiner for the following reasons.

Unlike the access controller 104 of the Applicants' invention, the Internal Schema (8, 12, 14) of *Dwyer* do not operate to repeatedly establish views of selectable records responsive to a security controller periodically redistributing a database over distributed memory units. In the *Dwyer* reference there is no disclosure of a systematic repetitive division and redistribution of a database for security purposes. Consequently, the Internal Schema (8, 12, 14) do not perform any function that is responsive to a security controller periodically redistributing a database over distributed memory units.

While it may be possible to assign the label “access controller” to the Internal Schema (8, 12, 14) of *Dwyer* the fact remains that the *Dwyer* reference does not disclose any structure that performs the functions of access controller 104 as claimed in amended Claim 1.

For the reasons set forth above, the Applicants also respectfully submit that amended Claim 6, amended Claim 11 and amended Claim 15 also contain unique and novel limitations and that amended Claim 6, amended Claim 11 and amended Claim 15 are not anticipated by the *Dwyer* reference.

Therefore, amended Claim 1, amended Claim 6, amended Claim 11 and amended Claim 15 are not anticipated by the *Dwyer* reference. The Applicants respectfully submit that the rejection of Claims 1, 6, 11 and 15 under 35 U.S.C. §102(b) as anticipated by the *Dwyer* reference should be withdrawn and that Claims 1, 6, 11 and 15, as amended, be passed to issue.

Claim Rejections – 35 U.S.C. § 103(a) Obviousness

On Pages 10-17 of the April 21, 2005 Office Action, the Examiner rejected Claims 19-32 of the Application under 35 U.S.C. § 103 (a) as being obvious over *Huang* in view of United States Patent No. 5,689,648 to *Diaz*.

In response the Applicants have amended Claims 1, 6, 11, 15 and 19 as described above. The Applicants respectfully traverse the Examiner's rejection of Claims 19-32, as amended. The Applicants respectfully submit that Claims 19-32, as amended, are not obvious in view of *Huang* and *Diaz*. The Applicants respectfully request the Examiner to withdraw the rejection of Claims 19-32 in view of the amendments to the claims and in view of Applicants' remarks concerning the *Huang* reference and the *Diaz* reference.

During *ex parte* examinations of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ. 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of non-obviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant

of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 USPQ 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not be based on an applicant's disclosure. MPEP § 2142.

The Applicants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the Applicants' invention. The Applicants hereby incorporate by reference all of the comments made above concerning the Applicants' invention made with respect to the *Huang* reference and the *Dwyer* reference.

On Page 12 of the April 21, 2005 Office Action, the Examiner stated that "Huang however, fails to disclose information that is commercial and likewise, a communication system that acts in the context of an E-Commerce system." (April 21, 2005 Office Action, Page 12, Lines 1-2). The Applicants respectfully traverse the assertion of the Examiner that the *Huang* reference

discloses a security controller as disclosed and claimed by the Applicants. The Applicants also respectfully traverse the assertion of the Examiner that the *Huang* reference discloses an access controller as disclosed and claimed by the Applicants.

For the reasons discussed above with respect to the *Huang* reference the Applicants respectfully submit that the *Huang* reference does not teach the claim limitations of amended Claim 19 that relate to the Applicants' security controller 106 and to the Applicants' access controller 104. The Applicants also respectfully submit that the *Diaz* reference does not contain any elements that are analogous to the Applicant's security controller 106 and the Applicants' access controller 104.

Under the applicable law, a prior art reference (or prior art references when combined) must teach or suggest all the claim limitations. The Applicants respectfully submit that there is insufficient teaching or suggestion in the prior art to combine the *Huang* reference and the *Diaz* reference. The Applicants respectfully submit that even if the *Huang* reference and the *Diaz* reference could be properly combined (which the Applicants do not admit), there would still be no teaching or suggestion in the combination of all of the claim limitations of amended Claim 19. The combination of the *Huang* reference and the *Diaz* reference is clearly legally insufficient to serve as a combination that would cause amended Claim 19 to be obvious. Therefore, the Patent Office has not carried the burden of establishing a *prima facie* case of obviousness.

The Applicants respectfully submit that the rejection of Claim 19 under 35 U.S.C. §103(a) as being obvious in view of the *Huang* reference and the *Diaz* reference should be withdrawn and that Claim 19, as amended, be passed to issue.

For the reasons set forth above, Applicants respectfully submit that amended Claim 19 contains unique and novel limitations. Applicants also respectfully submit that Claims 20 through 32 directly or indirectly depend from and contain all the unique and novel limitations contained in amended Claim 19. Therefore, Claims 20-32 are not obvious in view of the *Huang* reference or the *Diaz* reference or the combination of the *Huang* reference and the *Diaz* reference. The Applicants therefore respectfully submit that the rejection of Claims 19-32 under 35 U.S.C. §103(a) should be withdrawn and that Claims 19-32, as amended, be passed to issue.

The Applicants respectfully submit that Claims 1-32, as amended, are all patentable over the *Huang* reference and the *Dwyer* reference and the *Diaz* reference whether taken individually or in combination. The Applicants respectfully request that the rejection of Claims 1-32, as amended, be withdrawn and that Claims 1-32, as amended, be passed to issue.

The Applicants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. The Applicants reserve the right to submit further arguments in support of their above stated position as well as the right to introduce relevant secondary considerations including long-felt but unresolved needs in the industry, failed attempts by others to invent the invention, and the like, should that become necessary.

SUMMARY

For the reasons given above, the Applicants respectfully request reconsideration and allowance of pending claims and that this Application be passed to issue. If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at wmunck@davismunck.com.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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